DOCUMENT RESUME

ED 261 145 CE 040 579

AUTHOR Oen, Urban T.
TITLE Write Measurable Performance Objectives. Self-Instructional Competency-Based Professional Teacher Training Manual.
INSTITUTION Competency-Based Individualized Vocational Education Consortium, Addison, IL.
SPONS AGENCY Illinois State Board of Education, Springfield. Dept. of Adult, Vocational and Technical Education.
PUB DATE 85
NOTE 65p.; For related documents, see CE 040 578-581 and CE 042 060-070. Document printed on colored paper.
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Autoinstructional Aids; Behavioral Objectives; *Competency Based Education; Competency Based Teacher Education; Individualized Instruction; Learning Activities; *Teacher Developed Materials; Tests; Trainers; Training; *Vocational Education; Vocational Education Teachers

ABSTRACT

This publication is part of a series of self-instructional teacher training manuals designed to assist vocational-technical educators or industrial trainers to develop and implement competency-based vocational education (CBVE) programs. The purpose stated for this manual is for the instructor to learn to develop measurable performance objectives. Each manual contains the following sections: cover page that contains the task title, purpose, and information block (program and task codes, estimated time prerequisites); terminal performance and micro-performance objectives; procedures for completing this manual; learning activities with required resources cited; information sheets; activity sheets (self-checks) with answer keys; a written examination with answer key; and a product/performance checklist. (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED261145

COMPETENCY—BASED INDIVIDUALIZED VOCATIONAL EDUCATIONAL CONSORTIUM

CIVEC
301 N. Swift Road
Addison, Illinois 60101
312/620-8770

Produced By
Urban T. Oen, Ph.D.
DAVEA Center
301 N. Swift Road
Addison, IL 60101

A LEARNING GUIDE

Task WRITE MEASURABLE PERFORMANCE OBJECTIVES

Purpose Measurable performance objectives are the "blueprint" for trainee performance. They describe what the learner will be able to do at the end of instruction. Performance objectives are important for two reasons: (1) they tell learners what they must do to master a task, and (2) they provide curriculum developers with a guideline for systematic instructional development. This learning guide will teach you how to develop measurable performance objectives.

CE040579

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

U Oen

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

SELF-INSTRUCTIONAL COMPETENCY-BASED PROFESSIONAL TEACHER TRAINING MANUAL

Program	Task	Est. Time	Prereq.
PTT	003	2 Hours	001;002

© 1985

BEST COPY AVAILABLE

WRITE MEASURABLE PERFORMANCE OBJECTIVES

Prepared by:

Urban T. Oen, Ph.D., Project Director
Demonstration Center CIVE Project
(Competency-Based Individualized Vocational Education)
301 North Swift Road
Addison, Illinois 60101
(312) 620-8770

1985

This publication was developed for the Department of Adult, Vocational-Technical Education of the Illinois State Board of Education under the provisions of Project Number R-32-63-X-0333-130 awarded to the DAVEA Center. Opinions expressed in this manual do not necessarily reflect the official position or policy of the State Board of Education.

INTRODUCTION

This publication is part of a series of self-instructional teacher training manuals designed to assist vocational-technical educators or industrial trainers to develop and implement competency-based vocational education (CBVE) programs. Each manual addresses a different aspect of CBVE. The entire set is designed to enable instructors, administrators, or industrial trainers to develop the necessary skills needed to successfully develop and implement CBVE programs in a school or industrial setting.

Each manual contains the following sections: Cover page which contains the task title, purpose, and information block; inside pages of performance objective, micro-performance objectives, learning activities, information sheets, activity sheets (self-checks), a written exam, and a product/performance checklist.

Manuals have been developed for the following tasks:

1. Identify the Characteristics of a Competency-Based Vocational Education(CBVE) Program
2. Identify and Sequence Job Tasks
3. Write Measurable Performance Objectives
4. Construct Performance and Written Evaluation Instruments
5. Write Student Learning Guides or Competency Sheets
6. Adapt or Revise a Student Learning Guide or Competency Sheet
7. Identify Teaching/Learning Strategies and Management Techniques to Implement CBVE
8. Develop a Learning Resource Center
9. Orient Students to CBVE
10. Write a Student Performance Contract
11. Use Print and Nonprint Resources
12. Monitor Student Progress and Maintain Student Records

13. Assign Grades

14. Identify Necessary Administrative Support

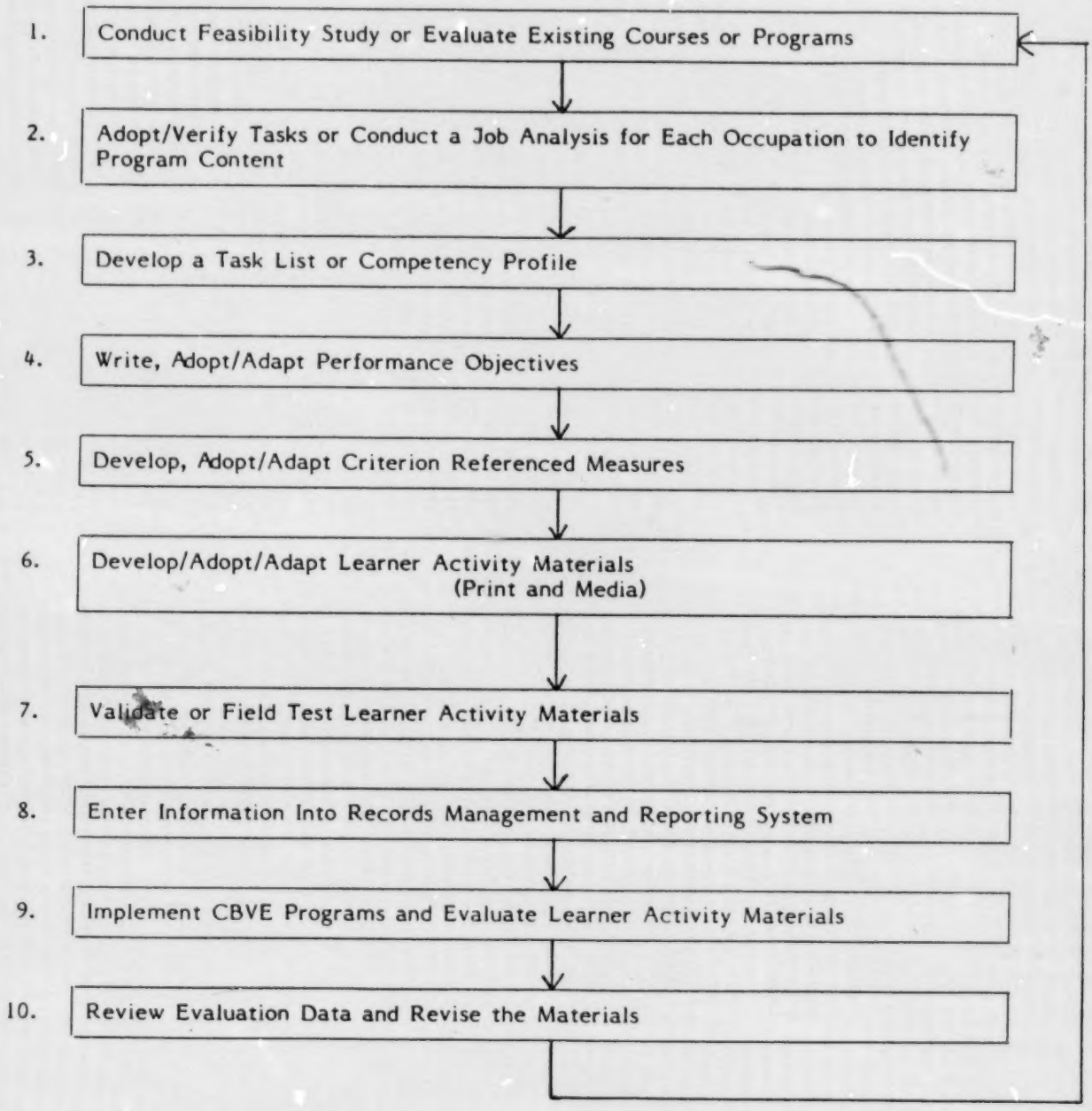
15. Prepare a Staff Development Program

Using the following CBVE systems development model, instructors, trainers, or administrators can develop and implement CBVE programs.

The following institutions deserve credit for the use of some of their materials in the development of these manuals:

- District 916 Area Vocational-Technical Institute, 3300 Century Avenue North, White Bear Lake, MN 55110
- Stephenson Area Career Center, Pearl City Road, Freeport, IL 61032
- Maryland State Department of Education, Division of Vocational Technical Education
- University of South Florida, Division of Vocational Education, Tampa, Florida

CBVE Curriculum Development Model


1. Conduct Feasibility Study or Evaluate Existing Courses or Programs
2. Adopt/Verify Tasks or Conduct a Job Analysis for Each Occupation to Identify Program Content
3. Develop a Task List or Competency Profile
4. Write, Adopt/Adapt Performance Objectives
5. Develop, Adopt/Adapt Criterion Referenced Measures
6. Develop/Adopt/Adapt Learner Activity Materials (Print and Media)
7. Validate or Field Test Learner Activity Materials
8. Enter Information Into Records Management and Reporting System
9. Implement CBVE Programs and Evaluate Learner Activity Materials
10. Review Evaluation Data and Revise the Materials

DEPT.	PROG	TASK	TPO	MPO
	PTT	003	003	

OBJECTIVES OF THIS MANUAL

1. TERMINAL PERFORMANCE OBJECTIVE

GIVEN: A list of tasks

YOU WILL: write Measurable Performance Objectives.

HOW WELL: To master this task, you must score 14 out of 14 or 100 percent on a written exam, and score 14 out of 16 or 87 percent on a product checklist.

2. MICRO-PERFORMANCE OBJECTIVE(S)

1. Identify the components of a measurable performance objective
2. Identify the characteristics of a measurable performance objective
3. Create measurable performance objectives
4. Write measurable performance objectives

PROCEDURES FOR COMPLETING THIS MANUAL

1. Review the CBVE curriculum development model, page 5
2. Read the learning steps and resources for each micro-performance objective
3. Complete the activity sheets for each micro-performance objective
4. Complete the written exam
5. Complete the performance test and review with your school's CBVE resource person

DEPT.	PROG	TASK	TPO	MPO
	PTT	003	003	

MICRO - PERFORMANCE OBJECTIVE #1

Identify the Components of a Measurable Performance Objective

LEARNING STEPS

1. Read Resource #1 to identify the components of a measurable performance objective.
2. Complete Resource #2 to check your understanding of measurable performance objectives.
3. Go to next MPO.

RESOURCES

1. Information Sheet 003-001-001, "What is a Measurable Performance Objective," in this guide, pages 8-11.
2. Activity Sheet 003-001-002, "Components of a Measurable Performance Objective," in this guide, pages 12-13.
3. MPO #2 in this guide page 14.

DEPT.	PROG	TASK	TPO	MPO
	P.T.T.	003	003	001

INFORMATION SHEET

003-001-001

What is a Measurable Performance Objective

Measurable student performance objectives are statements which describe what the learner must do to demonstrate successful performance of a task. Performance objectives tell the student three important things:

1. Conditions of performance - The conditions of performance inform the student what will be available when performing the task for evaluation. It is a statement of the particular circumstances under which the task will be observed, evaluated, or completed, and with what tools and equipment. From an instructor standpoint, the conditions should relate as closely as possible to actual job conditions in terms of tools, equipment, performance, and circumstances.

   For the learner, the condition statement tells him/her what he/she will be provided with to perform a task and under what circumstances.

   An example condition statement is:

Provided with a recipe, baking supplies and equipment...

Condition statements may fall into any of the following four categories:

A. Circumstances or environment under which the task must be performed

Examples:

1) Using the automotive laboratory...

2) While in Central DuPage Hospital...

3) In a simulated situation...

4) In an extended campus situation...

B. Equipment, tools, or supplies which the student is given to perform the task:

Examples:

1) Given assorted flowers, foliage, florist wire, and florist tape...

2) When given an inventory of bench stock supplies...

3) Using an electric typewriter, paper, and eraser...

4) Provided access to all references, materials, tools, and equipment...

C. Tools, equipment or resources to which the student is denied access:

Examples:

1) Without the use of references...

2) Using only those tools, equipment, and materials provided...

D. Information or situations that the student may be provided with that will direct the action in a certain direction:

Examples:

1) Provided a role playing customer...

2) When given a sentence containing the word "diastolic,"...

3) Given a four-year old student with a learning disability...

4) Using a case study provided by your instructor...

2. Task performance - a restatement of the actual task from the task list. The task is the performance the student must demonstrate.

An example task statement is:

Bake a layer cake

3. Criteria or Performance Standards - Criteria tell the student how fast and how well the task must be performed for mastery. Criteria are the standards, levels of proficiency, quality of outcome being sought which when achieved will signal acceptable attainment

of the task. The criteria should reflect industry standards that will be used to judge successful performance of tasks on the job. These criteria statements are the basis for, and should be readily translatable to, the means of measuring (evaluating) the student's performance by the instructor.

An example criteria statement is:

> To master this task, you must score 8 out of 10 or 80% on a written exam and receive 9 out of 10 or 90% on a product checklist.

By putting the three parts together, you have a measurable student performance objective.

> Provided with a recipe, baking supplies and equipment, bake a layer cake. To master this task, you must score 8 out of 10 or 80% on a written exam and receive 9 out of 10 or 90% on a product checklist.

Another way for stating the written measurable student performance objective, and preferred by many is:

GIVEN:	a recipe, baking supplies and equipment
YOU WILL:	bake a layer cake.
HOW WELL:	To master this task, you must score 8 out of 10 or 80% on a written exam and receive 9 out of 10 or 90% on a product checklist.

The main reason for leaving the objective in the three parts is that it is easier for the instructor and students to pick out what is to be done, under what circumstances, and the criteria. Special needs students especially have a difficult time picking out the parts when it is written as one statement.

An Analysis of the prior performance objective re eals that

A. During the testing situation, the learner will be given a recipe, baking supplies and equipment by the instructor. The objective so stated enables an accurate assessment of learner performance.

B. The task statement is identical to the task statement on the task list. This helps clarify and communicate the expected outcomes to the learners, instructors, parents, administrators, and employers. In the example, the student will be expected to bake a layer cake for task evaluation.

C. The criteria shows that the student must receive 90% on a product checklist which lists the objective standards to be used by the instructor to evaluate the student. Example standards in the example would be: taste, texture, appearance, etc. The student also must pass a written knowledge test to master the task.

D. A close look at the objective tells the evaluator what equipment and supplies will be needed by the student to demonstrate mastery.

E. The performance objective will guide the curriculum developers in determining what learning resources and learning activities will be needed to help the student learn the task; i.e., bake a layer cake.

The following information will be needed by the student:

1. How to read a recipe,
2. How to mix and combine ingredients, and
3. How to operate the oven and bake the cake.

F. The performance objective as stated helps form the basis for systematic instruction.

ACTIVITY SHEET

003-001-002

Components of a Measurable Performance Objective

Directions: Please complete the following in your own words.

1. List and describe the three parts of a measurable student performance objective.

   A. _____

   _____

   B. _____

   _____

   C. _____

   _____

2. List four reasons for writing measurable student performance objectives.

   A. _____

   B. _____

   C. _____

   D. _____

Now check your answers with the answer key on the next page.

Answer Key for Activity Sheet

003-001-007

Components of a Measurable Performance Objective

Directions: Please check your answers with those listed below.

1. List and describe the three parts of a measurable student performance objective.

   A. Conditions of performance - Describes what will be available when performing the task for mastery and the circumstances for task performance.

   B. Task performance - A restatement of the actual task. Begins with an action verb and contains an object being acted upon.

   C. Criteria or performance standards - Criteria tell the student how fast and how well the task must be performed for mastery.

2. List four reasons for writing measurable student performance objectives.

   A. To enable an accurate assessment of the learner performance.

   B. To help clarify and communicate the expected outcomes to all concerned.

   C. To show how well the student must perform the task.

   D. To inform the student and evaluator what equipment will be needed and the supplies to be used for task performance.

   E. To guide the curriculum developers in determining what learning resources and activities will be needed.

NOTE: Your answers should agree with the answers in the answer key. If you missed any, go back and review Information Sheet 003-001-001.

MICRO - PERFORMANCE OBJECTIVE #2

Identify the Characteristics of a Measurable Performance Objective

LEARNING STEPS

1. Read Resource #1 to identify the characteristics of a measurable performance objective.
2. Complete Resource #2 to check your understanding of the characteristics of measurable performance objectives.
3. Go to next MPO.

RESOURCES

1. Information Sheet 003-002-001, "Characteristics of a Measurable Performance Objective," in this guide, pages 15-25.
2. Activity Sheet 003-002-002, "Characteristics of Measurable Student Performance Objectives," in this guide, pages 26-32.
3. MPO #3 in this guide, page 33.

DEPT.	PROG	TASK	TPO	MPO
	P.T.T.	003	003	002

INFORMATION SHEET

003-002-001

Characteristics of a Measurable Performance Objective

The following are characteristics of measurable student performance objectives.

1. The behaviors called for in the performance objectives should be relevant to the occupation.
2. The performance objectives should be worded in terms of changes expected in students rather than as duties of the teacher.
3. The performance objectives should be stated in such a way that student performance can be evaluated by different persons with essentially the same results.
4. The performance objectives must be stated in specific terms so that they are not subject to different interpretations by different people.
5. The performance objectives for a given program should represent a mix and a balance among the psychomotor, cognitive, and affective domains.

The following table shows a summary of the do and do not characteristics of measurable student performance objectives.

TABLE I

Measurable Student Performance Objectives

Do Characteristics	Do Not Characteristics
1. Says something about the student.	1. Describe the textbooks, instructor, or the kinds of classroom experiences.
2. Describes the terminal behavior or performance of students.	2. Describe the performance of the the instructor or course content.
3. Begins with a hard action verb.	3. Describe what the student is expected to know, understand, or appreciate.
4. States the end rather than the means.	4. State procedures or provide information.
5. Describes the conditions under which the student will be performing the terminal behavior.	5. List the teaching/learning conditions.
6. States the minimum level of performance or accuracy and sometimes the speed.	6. List vague general categories.
7. Refers to written criterion exams and product/performance checklists.	7. State the evaluation standards in terms of instructor expectations.

The following tables give example conditions, task statements, and criteria statements of measurable student performance objectives. Review these carefully to note the correct way for stating each of the components. Following these three tables are example completed worksheets showing all three components followed by summary tables of example objectives.

TABLE 2

Sample Conditions for Performance Objectives

Given an alginate impression to be poured and the necessary supplies and equipment
Using an electric typewriter, paper, and eraser
Given assorted flowers, foliage, florist wire, and florist tape
Using a file and file holder
Given a hand-held light meter, a reference gray card, a roll of black and white film, and a camera
Provided a patient, physician's orders, and the necessary equipment and supplies
Given a list of terms and definitions
Given a sentence containing the word diastolic
When given an inventory of bench stock supplies
Given soiled blankets, bedspreads, cleaning supplies and equipment
When given a malfunctioning cutter
Given recipe, baking supplies, and equipment
Provided with an outboard engine

TABLE 3

Example Task Statements

Acceptable	Unacceptable
... identify by name each of the controls located...	... you must be able to identify by name each of the controls located...
Solve quadratic equations	To be able to solve quadratic equations
List the rules of football	To know the rules of football
Repair a radio	To be able to repair a radio
Calculate a problem using Ohm's law	To understand how to calculate a problem using Ohm's law
Orally describe the steps to be followed...	To understand the steps to be followed...
Read an assembly blueprint	To demonstrate ability to read an assembly blueprint
Form a sheet metal wired edge...	To form a sheet metal wired edge...
Replace alternator bearings	To be able to replace alternator bearings
Apply permanent tint to a patron's hair	Gingerly apply permanent tint to a patron's hair

TABLE 4

Sample Criteria Statements for Performance Objectives

In 60 minutes or less, score 17 of 19 points on a product checklist after you pass a written criterion exam with 8 out of 10 items correct.
Performance will be an acceptable rating on all * items on the product and performance checklists and 80 percent accuracy on the written criterion exam.
To master this task, you must score 7 out of 8 points or 90 percent on a product checklist and pass a written criterion exam with 17 out of 18 points or 90 percent correct.
Correctly identify 90 percent of them by name.
All items on the performance checklist must be rated acceptable.
The test results must be compatible with the established results for the test run to be considered acceptable.

TABLE 5

Example Completed Student Performance Objective Worksheet

Program Ornamental Horticulture

Task Identify Lawn Weeds

(Given) Conditions of Performance for Evaluation or Grading	(You Will) Task Statement	(How Well) Criteria or Standards for Performance
Given the following specimens of immature or mature weeds in a lab or in a mowed lawn without the use of references: 1. Common chickweed 2. Foxtail 3. Ground ivy 4. Tall fescue 5. Quackgrass 6. Buckhorn 7. Mouse-eared chickweed 8. Henbit 9. Knotweed 10. Yellow rocket 11. Crabgrass 12. Yarrow 13. Burdock 14. White clover 15. Broad-leaved plantain 16. Red sorrel 17. Prostrate spurge 18. Annual bluegrass 19. Bentgrass 20. Nimblewill	Identify lawn weeds	Correctly identify 90% of them by name.

DEPT.	PROG	TASK	TPO	MPO
PTT	003	003	002	

TABLE 6

Example Completed Student Performance Objective Worksheet

Program Clerical/Office Practice

Tasks: 1. Prepare & type a sales invoice
2. Type letter in simplified style
3. Type memorandum from previously typed material

	(Given) Conditions of Performance For Evaluation or Grading	(You Will) Task Statement	(How Well) Criteria or Standards for Performance
1.	Given unarranged information	Prepare and type a sales invoice	You must complete the invoice in 15 minutes and score 12 of 15 points or 80 percent on a product checklist.
2.	Using unarranged information	Type a letter in simplified style	You must complete this letter in 20 minutes and score 13 of 15 points or 86 percent on a checklist after scoring 8 out of 10 or 80 percent on a written criterion exam.
3.	Provided with edited, rough draft copy	Type the copy in memorandum form	You must complete the memorandum in 20 minutes and score an acceptable rating on all * items of the product checklist.

DEPT.	PROG	TASK	TPO	MPO
PTT	003	003	002	

TABLE 7

Samples of Affective Performance Objectives

(GIVEN)	(YOU WILL)	(HOW WELL)
Conditions of Performance For Evaluation or Grading	Affective Task	Criteria for Performance
An actual classroom and laboratory situation	Obey school rules	You must score 85 percent on a written exam and 95 percent on a performance checklist.
An actual laboratory situation	Display safety consciousness	You must score 85 percent corrected to 100 percent on a written exam and score 100 percent on a performance/ product checklist.
An actual classroom, LRC, and laboratory situation	Use time effectively	You must score 85 percent on a performance checklist.

DEPT.	PROG	TASK	TPO	MPO
PTT	003	003	002	

TABLE 8

EXAMPLE OBJECTIVES BY OCCUPATIONAL AREA

Occupational Area	Conditions	Task Statement	Criteria
Horticulture	Given assorted flowers, foliage, florist wire and florist tape	Prepare boutonniers using the three wiring techniques	Score 85% on the product checklist
Auto Mechanics	Given tools, equipment, and a drum brake system	Recondition a drum brake system	You must score 55 out of 69 on an exam and 24 out of 30 on a product checklist
Welding	Using an arc welder and mild steel	Weld a butt joint	All items on the product checklist must receive an acceptable rating
Machine Trades	Using a vertical band saw,drill press, and necessary lay-out and hand tools	Manufacture a C-Clamp body	You must score 8 out of 9 on a written exam and 22 out of 26 on a product checklist
Construction Trades	Given drawings, specifications, materials & tools	Rough in framing for cabinet sink	All items on the checklist must be rated acceptable
Graphic Arts	Provided with job specifications and materials to be run	Print multi-color copies on the offset press	You must score 9 out of 10 on a product checklist
Child Care	Provided with a topic and equipment	Prepare and present art activities in the preschool	You must score 25 out of 27 on a product/performance checklist
Cosmetology	Given a patron and the necessary equipment	Give a scissor shaping	All items on the product checklist must be rated as acceptable
Medical Assistant	Given three labeled blood specimens and the necessary supplies and equipment	Perform a white blood cell count	All items on the checklist must be rated as acceptable
Dental Assistant	Given 16 exposed radiographs, an automatic processor and supplies	Process radiographs	You must score 16 out of 20 on an exam and 11 out of 13 on the the product/performance checklist
Nursing Aide	Provided with supplies and a patient	Take and record temperature, pulse and respirations	You must pass an exam with 80% and score 80% on a performance checklist

TABLE 8 (Cont'd.)

Occupational Area	Conditions	Task Statement	Criteria
Food Service	Given dirty silverware, dishes, and glasses	Operate the dishwasher	You must score 9 out of 10 on the product/performance checklist
Word Processing	Given an edited, rough draft memorandum, typing instructions, and equipment	Type memorandums	You must score 10 out of 10 on a product checklist
Secretarial	Given data for five employees	Prepare payroll records and pay checks	You must complete the task in 45 minutes and score 26 out of 27 on a product checklist
Data Processing	Using the terminal and data from your instructor	Operate the terminal using the list program	You must score 8 out of 10 on the written exam and 10 out of 10 on the checklist
Electronics	Using tools and equipment	Calibrate the timing pulse of a digital timing circuit	The timing clock pulse frequency and amplitude must meet the design specifications of the circuit
Clothing	Given a pattern and fabric	Construct darts	You must score 7 out of 7 on a checklist
Agriculture	Given a month old calf at a nearby farm and an electric dehorner	Dehorn calves	You must pass a written test with 9 out of 10 and score 6 out of 6 on a performance/product checklist
Accounting	Provided with sales invoices, shipping reports, customer statements, tools and equipment	Audit statements sent to charge customers	You must score 6 out of 6 on the performance/product checklist
Auto Body	Given a vehicle prepared for painting	Paint the vehicle	All items on the performance/product checklist must be rated "acceptable"

ACTIVITY SHEET

003-002-002

Characteristics of Measurable Student Performance Objectives

Directions: Please complete the following without using any references.

1. List four characteristics of measurable student performance objectives.

   A. _____

   B. _____

   C. _____

   D. _____

2. Please indicate whether the following statements are conditions (c), task statements (t), or criteria statements (cr).

   ____A. Remove and replace brakes

   ____B. Using a file and file holder

   ____C. Correctly identify 90% of them by name

   ____D. All items on the performance checklist must be rated acceptable

   ____E. Using an electronic typewriter

   ____F. Provided with an outboard engine

   ____G. Bake a cake

   ____H. Type a business letter

   ____I. Performance will be an acceptable rating on all* items on the product checklist

   ____J. When given an inventory

3. Identifying the Components of Performance Objectives

Directions: In the following performance objectives, underline the condition statement with a single line and the criterion statement with a double line. DO NOT UNDERLINE THE TASK (OUTCOME) STATEMENT.

Example: Using a vacuum gauge, set the timing on any engine in accordance with the manufacturer's specifications for that engine. Mastery will be demonstrated by scoring 8 out of 10 or 80 percent on a written criterion exam and 14 out of 15 on a performance/product checklist.

A. Given the charts and this guide on how to calculate electrode filler rod and gas consumption, estimate the cost of consumable materials for repair or new fabrication and receive 22 of 22 points on a product checklist after scoring 9 out of 10 on a criterion exam.

B. Provided with an outdoor TV antenna, bit, and appropriate tools, install the antenna according to trade standards. All items on the product checklist must receive an acceptable rating.

C. Given an alginate impression to be poured and the necessary supplies and equipment, pour three types of gypsum. Evaluation will be an acceptable rating on all * items on the product/performance checklists. The student must also pass a written criterion exam scoring 8 out of 10 correct or 80 percent.

D. Given an electronic printing calculator and problems in addition and subtraction, compute the answers using touch addition and subtraction in 20 minutes or less and score at least 7 out of 8 points or 88 percent on a product checklist.

E. Using a recipe provided by the instructor and baking supplies and equipment, bake a layer cake. Mastery will be an acceptable rating on all * items on the product checklist.

F. Supplied with cleaners, rags, soap, and custodial supplies, perform assigned custodial tasks. Mastery will be demonstrated by scoring 18 out of 20 on the product checklist.

G. Given a picture of a vertical mill and a list of the functions of ten different controls, match at least 90 percent of the functions with the correct control.

H. Given a group of 25 unpaid invoices and statement forms, prepare a monthly statement for each customer with 100 percent accuracy.

I. Provided with six swatches of natural fiber fabric, identify in writing the type of fiber with 100 percent accuracy.

4. Place a check mark before the following performance objectives that meet the criteria of a well stated objective.

____A. Given an automobile with a faulty muffler, remove and replace the muffler. All items on the product checklist must be rated acceptable.

____B. Given dictation, type a business letter.

____C. Provided with the nutritional requirements of a family of four, prepare a two-week family menu that satisfies each family member's nutritional requirements.

____D. Using a power saw, cut 2 x 4's to various lengths. The cuts must be within ± 1/16" and meet the standards on the product checklist.

____E. When given a jammed printer, clean the jam without any assistance, and without damaging the machine.

____F. Given 20 tools, identify each tool by its correct name.

5. Edit the following objectives so that they conform to the characteristics of well stated objectives.

A. After given a twenty-minute presentation, the trainee will weld a butt joint and receive 10 out of 11 on the checklist.

B. Following dictation, type a letter in block style. The letter must be neat and free from errors and typo's.

C. Given an occupied bed, remove and replace the sheets.

D. Provided with the necessary tools and equipment, remove and replace a flat tire on a G.M. automobile. The tire and hub cap must be properly replaced.

Activity Sheet 003-002-002 (Cont'd.)

E. Using the grill, fry hamburgers. All hamburgers must be done.

NOTE: Now check your answers with the answer key on the following pages.

ANSWER KEY

For Activity Sheet 003-002-002

Characteristics of Measurable Student Performance Objectives

Directions: Please check your answers with the following suggested responses.

1. List four characteristics of measurable student performance objectives.

   A. The behaviors called for should be relevant to the occupation.

   B. Should be worded in terms of changes expected in students.

   C. Should be stated so that the performance can be evaluated by different persons with same results.

   D. Must be stated in specific terms so that they are not subject to different interpretations.

   E. Should represent a mix and balance among the psychomotor, cognitive, affective domains.

2. Please indicate whether the following statements are conditions (c), task statements (t), or criteria statements (cr).

   t A. Remove and replace brakes

   c B. Using a file and file holder

   cr C. Correctly identify 90% of them by name

   cr D. All items on the performance checklist must be rated acceptable

   c E. Using an electronic typewriter

   c F. Provided with an outboard engine

   t G. Bake a cake

   t H. Type a business letter

   cr I. Performance will be an acceptable rating on all* items on the product checklist

   c J. When given an inventory

DEPT.	PROG	TASK	TPO	MPO
	P.T.T	003	003	002

ANSWER KEY

For Activity Sheet 003-002-002 (Cont'd.)

3. Identifying the Components of Performance Objectives

A. Given the charts and this guide on how to calculate electrode filler rod and gas consumption, estimate the cost of consumable materials for repair or new fabrication and receive 22 of 22 points on a product checklist after scoring 9 out of 10 or 90 percent on a criterion exam.

B. Provided with an outdoor TV antenna, bit, and appropriate tools, install the antenna according to trade standards. All items on the product checklist must receive an acceptable rating.

C. Given alginate impression to be poured and the necessary supplies and equipment, pour three types of gypsum. Evaluation will be an acceptable rating on all * items on the product/performance checklists. The student must also pass a written criterion exam scoring 8 out of 10 correct or 80 percent.

D. Given an electronic printing calculator and problems in addition and subtraction, compute the answers using touch addition and subtraction in 20 minutes or less and score at least 7 out of 8 points or 88 percent on a product checklist.

E. Using a recipe provided by the instructor and baking supplies and equipment, bake a layer cake. Mastery will be an acceptable rating on all * items on the product checklist.

F. Supplied with cleaners, rags, soap, and custodial supplies, perform assigned custodial tasks. Mastery will be demonstrated by scoring 18 out of 20 on the product checklist.

G. Given a picture of a vertical mill and a list of the functions of ten different controls, match at least 90 percent of the functions with the correct control.

H. Given a group of 25 unpaid invoices and statement forms, prepare a monthly statement for each customer with 100 percent accuracy.

I. Provided with six swatches of natural fiber fabric, identify in writing the type of fiber with 100 percent accuracy.

4. Place a check mark before the following performance objectives that meet the criteria of a well stated objective.

✓ A. Given an automobile with a faulty muffler, remove and replace the muffler. All items on the product checklist must be rated acceptable.

___ B. Given dictation, type a business letter. (The criterion statement is missing.)

✓ C. Provided with the nutritional requirements of a family of four, prepare a two-week family menu that satisfies each family member's nutritional requirements.

✓ D. Using a power saw, cut 2 x 4's to various lengths. The cuts must be within ± 1/16" and meet the standards on the product checklist.

___E. When given a jammed printer, clean the jam without any assistance, and without damaging the machine. (Additional criterion statement is needed)

✓ F. Given 20 tools, identify each tool by its correct name.

5. Edit the following objectives so that they conform to the characteristics of well stated objectives.

Given access to tools and equipment,
A. ~~After given a twenty minute presentation, the trainee will~~ weld a butt joint and receive 10 out of 11 on the product checklist. (An objective never includes teaching and learning conditions. The task statement should begin with an action verb.

Given
B. ~~Following~~ dictation, type a letter in block style. You must complete the letter in 15 minutes and receive 10 out of 11 on the product checklist. ~~The letter must be neat and free from errors and typo's.~~ (The words following dictation deal with teaching and learning conditions. The criterion statement should refer to a checklist.)

C. Given an occupied bed, remove and replace the sheets. All items on the performance checklist must be rated as "acceptable." (In letter C, the criterion statement was missing.

D. Provided with the necessary tools and equipment, remove and replace a flat tire on a G.M. automobile. All items on the product checklist must be rated as acceptable. ~~The tire and hubcap must be properly replaced.~~

(Note: In this case, it would be better to have a checklist which spelled out that the lug nuts were tightened correctly along with other standards.

E. Using the grill, fry hanburgers. ~~All hamburgers must be done.~~ All items on the product/performance checklist must be rated as "acceptable."

(A checklist is needed to spell out the standards. A hamburger could be well done and yet be very tough due to very slow, delayed, or inadequate frying procedures.

Note: All of your answers should agree with the answers in the Answer Key. If you missed any, go back and review Information Sheet 003-002-001.

MICRO - PERFORMANCE OBJECTIVE #3

Create Measurable Performance Objectives

LEARNING STEPS

1. Read Resource #1 to learn how to write measurable performance objectives.
2. Complete Resource #2 to practice writing measurable performance objectives.
3. Go to next MPO.

RESOURCES

1. Information Sheet 003-003-001, "Writing Measurable Performance Objectives", in this guide, pages 34-42.
2. Activity Sheet 003-003-002, "Performance Objectives Worksheet", in this guide, pages 43-46.
3. MPO #4 in this guide, page 47.

DEPT.	PROG	TASK	TPO	MPO
	PTT	003	003	003

INFORMATION SHEET

003-003-001

Writing Measurable Performance Objectives

Before beginning the actual writing of measurable performance objectives, it is important to understand that there are different categories as well as different levels of objectives.

Each of these categories and levels represent different types of learning outcomes. Some outcomes may deal with thinking skills, while others may deal with attitudes, interests, or performance. Bloom et al. have classified objectives into three domains. This classification system is reported in the handbook entitled, Taxonomy of Educational Objectives.

The three domains of the taxonomy are:

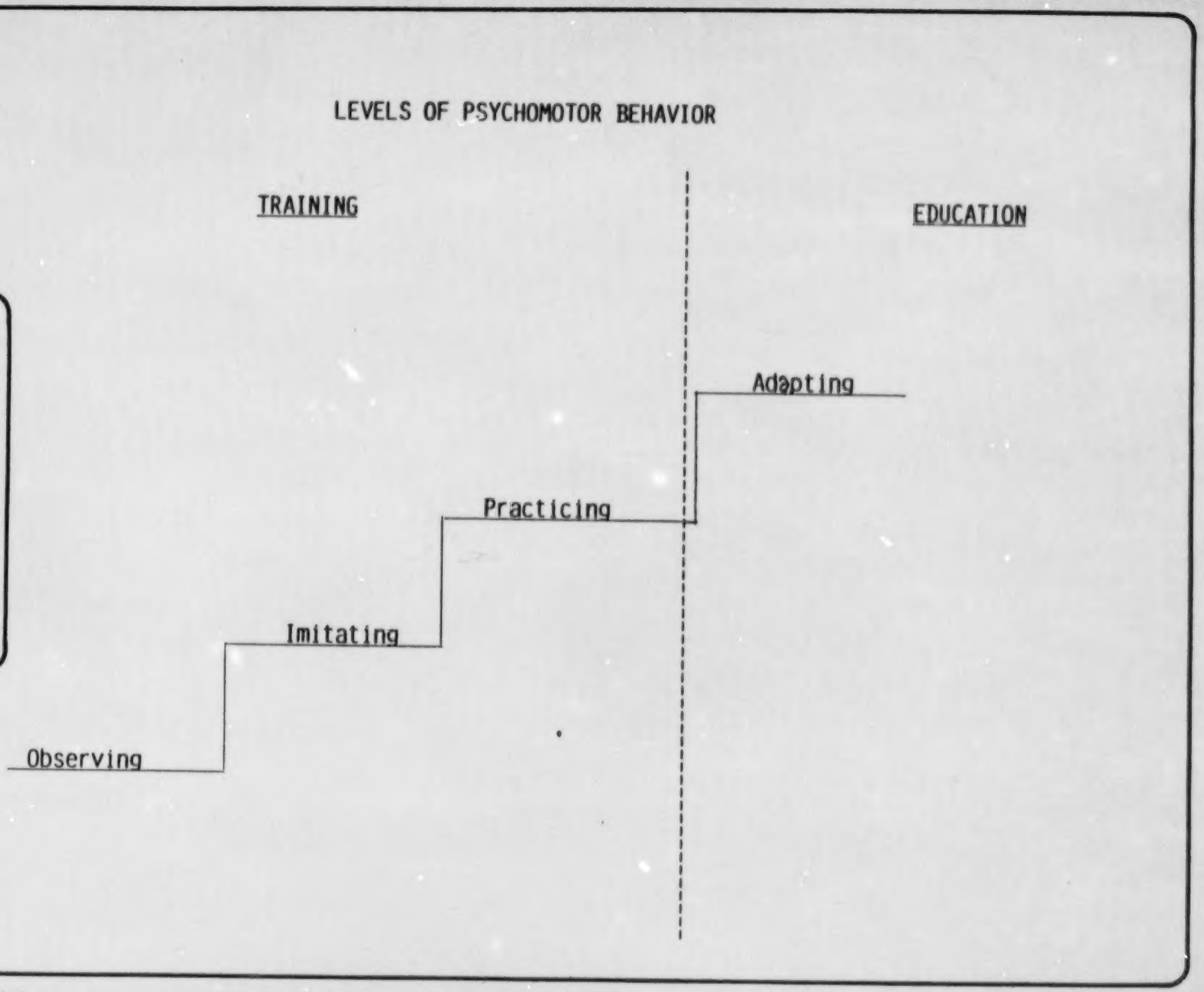
1. Cognitive domain - those objectives which are concerned with the intellectual processes of students. Knowledge, understanding, thinking, and problem solving are in this category.
2. Affective domain - those objectives dealing with attitude, emotion, and valuing are in this category.
3. Psychomotor domain - those objectives concerned with the skill performance of the student.

The categories for classifying objectives in each domain are arranged in hierarchical order, from the simplest to the most complex behavior. The lowest level of the cognitive domain is knowledge while the highest levels are analysis, synthesis, and evaluation. The figure which follows graphically displays the six levels of the cognitive domain. From the figure, it can be seen that knowledge is needed before comprehension can take place. Both knowledge and comprehension are needed in order to apply what has been learned. Objectives written at the lower level prepare students who can recall facts, identify things, and give examples. Students who can only function up to the application level are labeled as "trained" in the figure. Perhaps 30-40 percent of the students will function at this level. The vast majority of vocational-technical students need to function at a much higher level in order to cope with the rapidly changing technologies. They need to understand concepts, apply principles, and solve problems. They need

to be able to analyze, synthesize, and evaluate. Unless objectives are written for the higher levels for all three domains, students will be functioning at levels which may be inappropriate to their needs.

For example, in automotive mechanics, the task of removing and replacing a carburetor falls in the training levels of the psychomotor domain. In addition, the cognitive knowledge needed to remove and replace the carburetor falls at the lower level of the cognitive domain. In order to move the students from training to education, the objectives must be written at the higher level. Objectives which ask the student to "diagnose" or "troubleshoot" are written at the higher levels. In order to diagnose or troubleshoot, the student needs the cognitive knowledge of all the carburetor parts, he/she needs to understand how a carburetor operates, and the principles of fuel to air mixture. In order to diagnose or troubleshoot, the student must first analyze the situation , synthesize and recall previously learned facts, apply the concepts and principles previously learned, identify the problem, and then evaluate the situation or apply problem-solving techniques to remedy the situation. In the figure of the psychomotor domain, the educated student is able to adapt to new situations, whereas, the trained student will only be able to perform routine "doing" tasks, not "thinking" tasks.

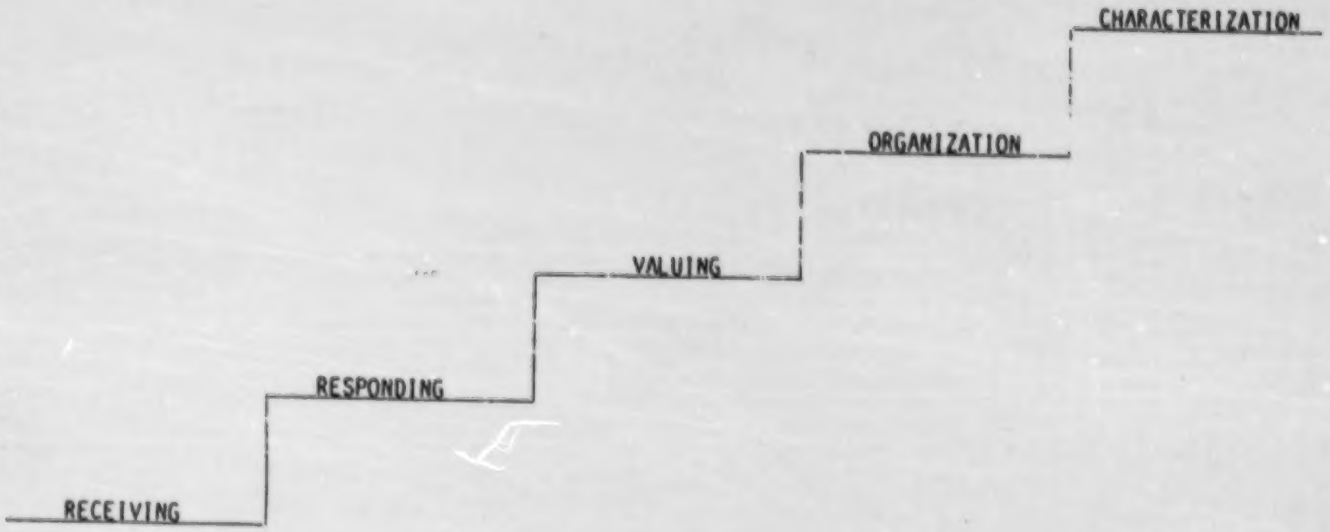
NOTE: Action verbs for the three domains are contained in Professional Teacher Training Manual Number 2.



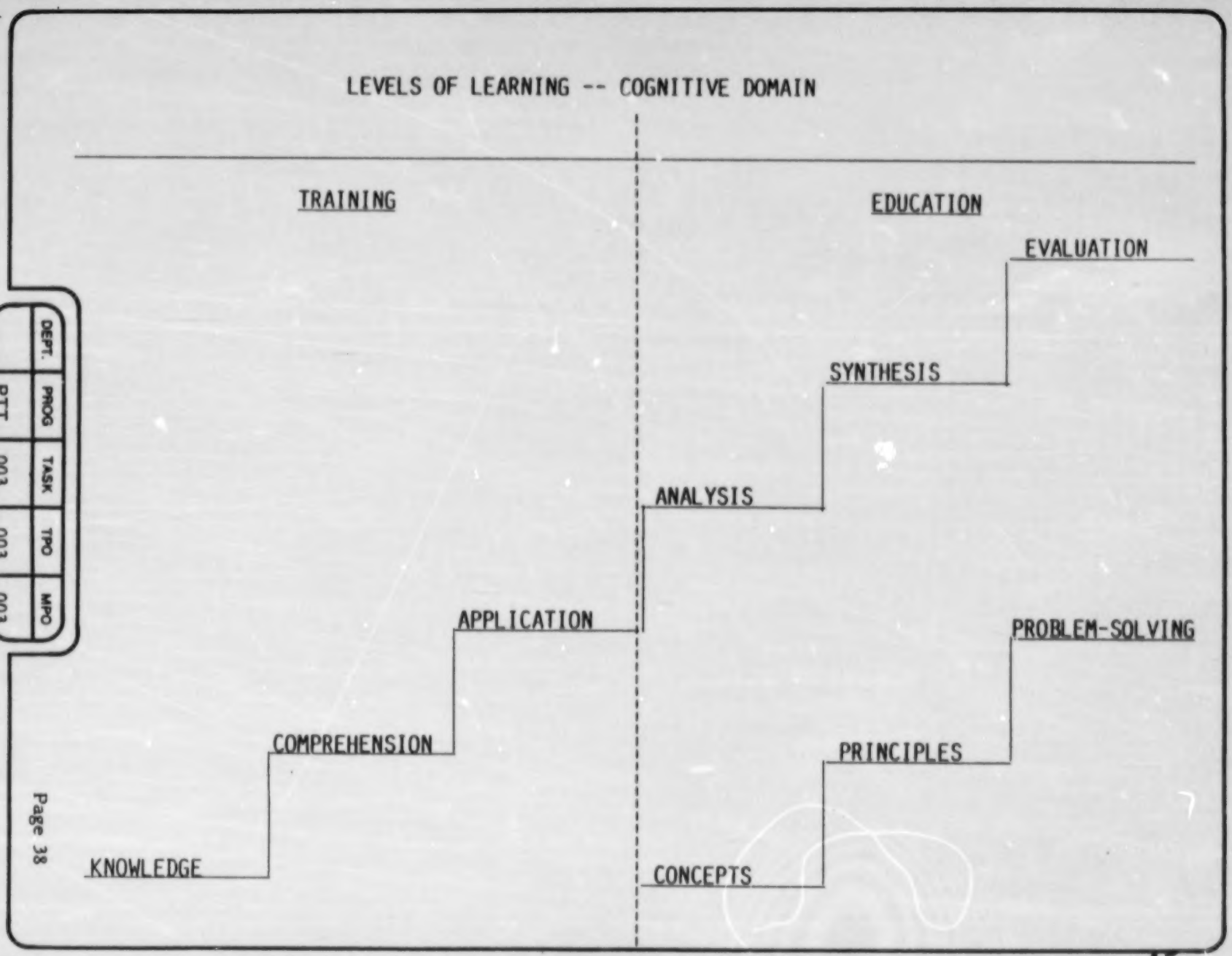
DEPT.	PROG	TASK	TPO	MPO
	PTT	003	003	003

Page 36

LEVELS OF AFFECTIVE BEHAVIOR



DEPT.	PROG	TASK	TPO	MPO
PTT	003	003	003	



DEPT.	PROG	TASK	TPO	MPO
PTT	003	003	003	

Writing Measurable Performance Objectives

When writing performance objectives, it is important to include all three components, i.e., task statement, condition, and criteria. In order to insure that you do not leave out any aspects of a performance objective, it is recommended that you use a form similar to the one below. Note that the form contains all three components for a performance objective.

Performance Objective Worksheet

Duty_____ Task No._____

Task Statement (From task list)_____

Condition	Task Statement	Criteria (Standards)

After filling in the duty, task number, and task at the top of the page, the writer enters the task statement into the task statement column. Note that the words "The student will" have been omitted. Since these are student or trainee objectives and not instructor or trainer objectives, these words are not needed nor are they used. Some people insist on adding these words; however, for personalized instruction they should never be used. Put yourself in the role of the student. As a student, it is preferable to have personalized objectives; hence, please leave out extraneous items. In the example to follow, the task "bake a layer cake" was entered.

Condition	Task Statement	Criteria (Standards)
	Bake a layer cake	

The next step is to list the condition. It is important to remember that these are the conditions under which the trainee will demonstrate the task and not the teaching/learning conditions. See the example below:

Condition	Task Statement	Criteria (Standards)
Provided with a recipe, baking supplies and equipment	Bake a layer cake	

The final step is to list the criteria which will be used to evaluate the student. These should be based upon job-entry standards.

Condition	Task Statement	Criteria (Standards)
Provided with a recipe, baking supplies and equipment	Bake a layer cake	To master this task you must pass a written criterion exam by scoring 8 out of 10 or 80% and score 8 out of 10 or 80% on a product checklist.

When writing performance objectives, you simply begin writing from left to right. For example:

> Provided with a recipe, baking supplies and equipment, bake a layer cake. To master this task, you must pass a written criterion exam by scoring 8 out 10 or 80% and 8 out of 10 or 80% on a product checklist.

As mentioned earlier in this manual, it is preferred that you leave the objective in a three-part format using the following as headings:

> Given:
> You Will:
> How Well:

If time is important, it should be included with the criteria. For example, suppose the student were to weld two tee joints in 30 minutes. The worksheet would look like this:

Performance Objective Worksheet

Duty_____ Task No. 250

Task Statement Weld two tee joints

Condition	Task Statement	Criteria (Standards)
Given the opportunity to select all the necessary tools, materials, and equipment	Weld two tee joints	To master this task, you must complete it in 30 minutes and score 9 out of 10 or 90% on a written exam and receive 17 out of 19 points or 89% on a product checklist.

The written objective would look like this:

Given the opportunity to select all the necessary tools, materials, and equipment weld two tee joints. To master this task you must complete it in 30 minutes and score 9 out of 10 or 90% on a written exam and receive 17 out of 19 points or 89% on a product checklist.

The recommended way to write the objective is as follows:

Given: the opportunity to select all the necessary tools, materials, and equipment

You Will: weld two tee joints

How Well: To master this task you must complete it in 30 minutes and score 9 out of 10 or 90 percent on a written exam and receive 17 out of 19 points or 89 percent on a product checklist.

ACTIVITY SHEET

003-003-002

Criterion Test on Performance Objectives*

Directions:

Place a P, A, or C by each statement depending upon whether it is primarily psychomotor, affective, or cognitive:

___ 1. Draw an inked line with no discernible deviation in width.

___ 2. Select the phrase describing 10 common map symbols.

___ 3. Summarize the arguments of two peers to the satisfaction of each.

___ 4. Request that campus discipline regulations be revised by a student committee.

___ 5. Apply bandage without impairing sterility of the pad.

___ 6. Fewer than 10 percent of the students shall drop a class during the first two weeks.

Read the two psychomotor statements and place an X by the one which is more complex.

___ 7. Fill the hypodermic syringe without admitting air bubbles into the syringe.

___ 8. Advance the hypodermic needle slowly into tissue near the surface of the wound, maintaining constant pressure on the syringe plunger.

In the following three statements, write "high" by the statement which is highest on the affective hierarchy and write "low" by that which is lowest.

___ 9. Student states that watching an assigned TV documentary program was interesting..

___10. Student watches a film in class.

___11. Student searches TV Guide for programs on science for leisure viewing.

* Adapted from Criterion Test in Developing Individualized Instructional Material by Stuart and Rita Johnson, Palo Alto: Westinghouse Learning Press.

One example of cognitive statements for the following levels: knowledge, comprehension, application, and analysis, is given below. Place the letters K, C, Ap, and An in the appropriate blanks to indicate the level of each statement.

_____12. In your own words, state the meaning of the term social system.

_____13. After observing the public picnic ground, decide which social subgroups are present; give each group descriptive names and state observations to defend your classification.

_____14. Define the terms status and hierarchy.

_____15. Given (1) a high school class roster and (2) the name of the pupil selected by each pupil as "my best friend in class," identify the most popular pupils and the social isolates.

Place an "X" by those subtasks which are necessary to the accomplishment of the task: swim 50 yards using breast stroke.

_____16. Student can locate small object on bottom of pool.

_____17. Student must tread water for 15 seconds.

_____18. Student shall coordinate arm stroke and kick.

_____19. Student shall coordinate breathing and arm strokes.

_____20. Student shall shower before getting into public pool.

Activity Sheet 003-003-002 (Cont'd.)

Performance Objectives Worksheet

Program _____ Task _____

Directions: Take a task statement for your instructional area and complete this worksheet.

CONDITIONS	TASK STATEMENT	CRITERIA

Evaluate your objective with the Product Checklist: Task 003. All items must be rated yes.

DEPT.	PROG	TASK	TPO	MPO
P.T.T.	003	003	003	

Page 45

ANSWER SHEET

For Activity Sheet 003-003-002

Criterion Test on Performance Objectives*

Directions: Check your answers with those listed below. If you missed any, please re-read Information Sheet 003-003-001.

1. P
2. C
3. A or C
4. A
5. P
6. A
7. (Filling the syringe does not take as much ability as to perform the task listed in #8.)
8. X
9. (Talking about a TV show is a higher level activity than passively watching a TV show.)
10. Low
11. High (This activity is high because discrimination must be made.)
12. C
13. An
14. K
15. Ap
16.
17.
18. X
19. X
20.

MICRO - PERFORMANCE OBJECTIVE #4

Write Measurable Performance Objectives

LEARNING STEPS

1. Read Resource #1 for key points to remember when writing objectives.

2. When you feel you know all about writing measurable student performance objectives, take the written exam.

3. Practice writing measurable student performance objectives while reviewing all the resources. Check objectives against product checklist standards.

4. When you feel you can write measurable student performance objectives without resources or assistance, perform for evaluation by completing Resource #4-B.

RESOURCES

1. Information Sheet 003-004-001, "Key Points to Remember When Writing Measurable Performance Objectives", in this guide, pages 48-49.

2. Written Exam: Task 003, pages 50-52.

3. All resources in this guide.

4. A. Product Checklist: Task 003, page 54-55.
   B. Activity Sheet 003-004-002, "Write Measurable Performance Objectives", in this guide, page 53.

DEPT.	PROG	TASK	TPO	MPO
	PTT	003	003	003

INFORMATION SHEET

003-004-001

Key Points to Remember When Writing Measurable Performance Objectives

The following is a summary of the key points to remember when writing measurable student performance objectives. The points are divided into the three components of condition, task statement, and criteria.

CONDITIONS	TASK STATEMENT	CRITERIA
1. For a cognitive only objective, the condition can be, "Given a Written Exam..." or "Given 20 Addition Problems...", etc.	1. The task statement is an actual restatement of the task from the program task list. It is acceptable to add qualifiers or to alter the task statement in order to clarify the intent.	1. Describes how much is required, how quickly it must be completed, and the quality of work or performance.
2. You should be able to answer the question, "Given What?" when demonstrating the task for mastery.	2. You should be able to answer the question, "Does What?"	2. You should be able to answer the question, "How Well?"
3. Describes the performance or testing situation, not the teaching/learning situation.	3. Stated in observable, measurable terms.	3. Should reflect industry standards that will be used to judge successful task performance on the job for a beginning employee or whatever level you are involved with your training.
4. Lists tools, equipment and limits of the testing situation. (Avoid a lengthy list of specific tools and equipment as this will make the objective too long.)	4. Begins with an action verb.	4. Should refer to written exams and product/performance checklists. Avoid long lists of standards as these will make the objective too long and unwieldy. These belong on the checklists.

DEPT. | PROG | TASK | TPO | MPO
P.T.T | 003 | 003 | 004

DEPT.	PROG	TASK	TPO	MPO
P.T.T.	003	003	004	

CONDITIONS	TASK STATEMENT	CRITERIA
5. Lists only essential and not obvious items. For example, "Given an oven, cake pan, etc., to bake a cake" would not need to be stated.	5. Describe what the learner will be doing when demonstrating the task for mastery.	5. The standards should be specific, objective, and evaluatable. Avoid statements such as: A. "following established procedures." B. "in accordance with manufacturer's specifications". C. "to the instructor's satisfaction." D. "performed in a safe manner" E. performed "adequately, "correctly", or "properly."
6. The conditions should relate as closely as possible to the actual job conditions in terms of time limits, materials used, and tools and equipment which a beginning employee will be confronted with when performing the job.		6. Keep the minimal level high enough to avoid students from becoming "minimally trained." The criteria must ensure competent trained personnel.
		7. It usually is impossible to complete the criteria standards until the evaluation instruments are prepared.

PROGRAM Professional Teacher Training

CRITERION EXAM

TASK # 003

DIRECTIONS:

THE PURPOSE OF THIS EXAM IS TO DETERMINE WHETHER OR NOT YOU HAVE UNDERSTOOD THE INFORMATION ON WRITING MEASURABLE PERFORMANCE OBJECTIVES.

Each of the questions or incomplete statements below is followed by several words, phrases, or a series of numbers. Choose the one which best answers the question or completes the statement correctly. Place the letter associated with that choice (A, B, C or D) in the numbered blank space on your ANSWER SHEET. DO NOT WRITE ON THIS TEST! To master this exam you must answer 14 out of 14 items correctly, (100 %).

DEPT.	PROG	TASK	TPO	MPO
	P.T.T.	003	003	004

Written Criterion Exam

Task 003

Directions: Please complete the following. (Circle the correct response)

T F 1. Measurable performance objectives tell the learner what must be done to master a task.

T F 2. Measurable performance objectives contain two components.

T F 3. "Given a recipe..." is an example of a task statement.

T F 4. "to master this task, all items must be rated as acceptable..." is an example of a criterion statement.

T F 5. Speed of performance is listed with the conditions statement.

T F 6. The criteria should reflect industry standards.

(Please indicate whether the following statements are conditions (c), task statements (t), or criteria statements (cr).)

_____ 7. Bake a layer cake

_____ 8. When given an inventory...

_____ 9. All items on the checklist must be rated acceptable

_____ 10. Using a claw hammer

_____ 11. Prepare a report...

_____ 12. Identify 95% of them by name

(Edit the following objectives so they conform to well stated objectives)

13. After a lecture, operate the micro-computer. All items on the performance checklist must be acceptable.

14. Provided with the necessary tools, remove and replace brake shoes and pads.

NOTE: Check your answers with the Answer Key on the next page. If you missed any items, please review the manual and retake the test.

DEPT.	PROG	TASK	TPO	MPO
	P.T.T.	003	003	004

ANSWER KEY For

Written Criterion Exam

Task 003

Directions: Please check your answers with those given below.

(T) F 1. Measurable performance objectives tell the learner what must be done to master a task.

T (F) 2. Measurable performance objectives contain two components.

T (F) 3. "Given a recipe..." is an example of a task statement.

(T) F 4. "to master this task, all items must be rated as acceptable..." is an example of a criterion statement.

T (F) 5. Speed of performance is listed with the conditions statement.

(T) F 6. The criteria should reflect industry standards.

(Please indicate whether the following statements are conditions (c), task statements (t), or criteria statements (cr).)

t 7. Bake a layer cake

c 8. When given an inventory...

cr 9. All items on the checklist must be rated acceptable

c 10. Using a claw hammer

t 11. Prepare a report...

cr 12. Identify 95% of them by name

(Edit the following objectives so that they conform to well stated objectives.)

13. Given a problem and equipment
~~After a lecture~~, operate the micro-computer. All items on the performance checklist must be acceptable.

14. Provided with the necessary tools, remove and replace brake shoes and pads.

All items on the product checklist must be rated acceptable.

NOTE: If you missed any items, please re-read the manual and see your CBVE resource person.

DEPT.	PROG	TASK	TPO	MPO
	P.T.T.	003	003	004

ACTIVITY SHEET

003-004-002

Write Measurable Performance Objectives

Directions: Please complete the conditions and criteria statements for the following tasks. Check your responses with Product Checklist 003. You may want a CBVE consultant or CBVE resource person in your school to also check your objectives.

Conditions	Task Statement	Criteria
	Type a letter in modified block style	
	Remove brake shoes	
	Give a back rub	
	Operate the deep fryer	
	Operate the vertical mill	

PROGRAM: Professional Teacher Training

TASK: Write Measurable Performance Objectives

TASK # 003

PERFORMANCE/PRODUCT CHECKLIST

STUDENT'S NAME _____ **EVALUATION SITE** _____

EVALUATOR'S NAME _____ **PERFORMANCE ATTEMPT** 1 2 3 4

DATE OF ATTEMPT ____ ____ ____ ____

TERMINAL PERFORMANCE OBJECTIVE:

Given a list of tasks, write measurable performance objectives.

DIRECTIONS TO THE STUDENT:

BEFORE ATTEMPTING THIS TASK FOR MASTERY, CAREFULLY REVIEW THIS CHECKLIST. YOU WILL BE EVALUATED ON THE BASIS OF THIS CHECKLIST. WHEN YOU FEEL YOU ARE READY FOR EVALUATION CONTACT YOUR INSTRUCTOR. YOU MUST COMPLETE YOUR PERFORMANCE WITHIN _____ MINUTES AND MUST SCORE AT LEAST 14 OUT OF 16 POINTS OR 87 % FOR MASTERY. CRITICAL ITEMS ARE MARKED WITH AN ASTERISK (*). THESE ITEMS MUST BE SATISFACTORILY COMPLETED.

DIRECTIONS TO THE EVALUATOR:

THE STUDENT WILL CONTACT YOU WHEN READY FOR EVALUATION. THE STUDENT MUST COMPLETE THE PERFORMANCE WITHIN _____ MINUTES AND MUST SCORE 14 OUT OF 16 POINTS OR 87 % AND ALL ITEMS MARKED WITH AN ASTERISK (*) MUST BE SATISFACTORILY COMPLETED.

DEPT.	PROG	TASK	TPO	MPO
	P.T.T.	003	003	004

CRITICAL ITEMS	ITEMS TO BE OBSERVED OR CHECKED	RATING YES	RATING NO
	CONDITION		
*	1. Is the place of performance stated?		
*	2. Are the tools, materials or equipment stated?		
*	3. Are any special constraints listed?		
*	4. Does the condition of performance relate as closely as possible to the actual job conditions?		
*	5. Does the condition statement describe the performance or testing situation and not teaching/learning situations?		
	TASK STATEMENT		
*	6. Does the statement begin with an action verb?		
*	7. Is it in observable, measurable terms?		
*	8. Does the statement specify what the trainee will be doing when demonstrating the task for mastery?		
*	9. Is the statement a repeat of the task statement?		
	CRITERIA		
*	10. Does it state the quality needed for minimum requirements?		
	11. Does it state the quantity desired?		
*	12. Does it state the time or time limits allowed to complete the outcome statement?		
*	13. Does it state the results considered acceptable?		
*	14. Does the criteria statement reflect industry standards?		
*	15. Is the statement free from statements such as "following established procedures," "to instructor's satisfaction", etc.?		
	16. Does the statement avoid lengthy lists of standards?		
	TOTAL POINTS EARNED =		

POINTS NEEDED FOR MASTERY = 14
TOTAL POINTS POSSIBLE = 16

DEPT.	PROG	TASK	TPO	MPO
	P.T.T.	003	003	004